

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of the claims:

1. (currently amended) A method of using a Graphical User Interface (GUI) to display relationships amongst resources of a system, the method comprising:

illustrating at least two overlapping but separate hierarchies ~~in a~~ the same mosaic-like graphic; each of said separate hierarchies ~~hierarchy~~ representing one or more of the relationships amongst the resources; and

arranging said resources representing same type of resources into columns, wherein adjacent columns group different resources, and a row intersecting adjacent columns indicates relationships between particular resources of the respective column, wherein the mosaic-like graphic depicts a logical unit number (LUN) occupying a rank in both of the two overlapping but separate hierarchies.

2. (currently amended) The method of claim 1, wherein said resources are represented by icons and ~~at least one resource occupies a rank in at least two of said overlapping but separate hierarchies~~, further comprising:

sizing said icons in proportion to said at least one attribute of said represented resource.

3. (currently amended) The method of claim 1, wherein said LUN is a child in separate hierarchical trees ~~2, wherein said at least one attribute is storage capacity.~~

4. (canceled)

5. (previously presented) The method of claim 2, further comprising:

labeling one hierarchical columns and one hierarchical rows with an indication of at least one common feature.

6. (previously presented) The method of claim 2, further comprising:

interacting with at least one said icon of said mosaic-like graphic, wherein said interaction results in a change in said at least one attribute of said represented resource; and

in response to said interaction, restructuring a first mosaic-like pane by at least re-sizing said icons proportional to a change in said at least one attribute of said represented resources, compared to a footprint of said at least one attribute prior to said interaction.

7. (currently amended) The method of claim 1-6, wherein said LUN reports to a volume group (VG) in one storage resources and a just a bunch of disks (JBOD) in another storage resource, interacting step, comprises:

~~receiving an indication that one of said icons was chosen from said first mosaic-like pane;~~

~~displaying attributes of said represented resource; and~~

~~receiving changes to said attributes.~~

8. (currently amended) The method of claim 1 further comprising: simultaneously displaying in the mosaic-like graphic icons of LUNs in one column, icons of volume groups (VGs) in a second column, and icons of file volumes (FVs) in a third column.^{-7,} wherein said displaying attributes comprises:

~~illustrating said attributes in a pop-up window.~~

9. (currently amended) The method of claim 1, wherein arrays, LUNs, and volume groups are simultaneously displayed in separate columns.^{-7,} wherein said receiving an indication, comprises:

~~receiving a user indication through a peripheral device.~~

10. (previously presented) The method of claim 2, wherein the mosaic-like graphic is a first mosaic-like graphic, the method further comprising illustrating a first mosaic-like pane and a second mosaic-like pane containing independent icons representative of

resources that may be added to said at least two overlapping but separate hierarchies, comprising:

receiving an indication of a new relationship developed between a resource of a type represented in said second mosaic-like pane and the resources represented in said first mosaic-like pane; and

restructuring, in response to receiving said indication, said at least two overlapping but separate hierarchies and corresponding said first mosaic-like pane by at least re-sizing said icons proportional to a change in said at least one attribute of said represented resources, compared to a footprint of said at least one attribute prior to receiving said indication.

11. (original) The method of claim 10, wherein said receiving an indication step, comprises:

processing a drag-and-drop of at least one said independent icon from said second mosaic-like pane to said first mosaic-like pane.

12. (original) The method of claim 11, further comprising:

rejecting said processing of an invalid said drag-and-drop.

13. (original) The method of claim 11, further comprising:

in response to said processing step, displaying a pop-up window for receiving changes to said attributes.

14. (currently amended) A method of controlling the relationships amongst resources of a system, wherein said resources are iconically represented and illustrated on a Graphical User Interface (GUI), comprising:

manipulating a relationship of the resources in said iconically illustrated system; and

re-sizing areas of, in response to said manipulating, the relative footprints of said icons according to an effect upon respective ones of the corresponding resources, respectively, caused by the manipulating the relationship manipulation, wherein the

relationships of the resources are shown in a hierarchical tree from placement of icons in columns with resources of a same type being in a same column and a resource is shown as being a child to separate hierarchical trees that depict storage resources.

15. (original) The method of claim 14, wherein said manipulating step comprises:

interacting with at least one icon, representative of one said resource in said iconically illustrated system to initiate a change of at least one attribute of said represented resource.

16. (original) The method of claim 15, wherein said initiating step comprises:

displaying, in response to said interaction step, attributes of said represented resource, wherein said attributes are changeable; and
style="padding-left: 80px;">indicating changes to said at least one attribute through the operation of at least one peripheral device.

17. (original) The method of claim 16, wherein said displaying attributes step comprises:

illustrating said attributes in a pop-up window.

18. (original) A method of displaying relationships amongst first, second and third types of resources of a system, the method comprising:

preparing a graphic of at least two separate but overlapping hierarchies such that viewing the graphic in a first direction represents a first one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the second resource type, and

viewing the graphic in a second direction different from the first direction represents a second one of said separate but overlapping hierarchies in which ones of the first resource type report hierarchically to ones of the third resource type; and

displaying the graphic.

19. (original) The method of claim 18, wherein the graphic is mosaic-like.

20. (currently amended) The method of claim 19, wherein each of the first, second and third resources is represented as an iconic element of the mosaic-like graphic that includes logical unit numbers (LUNs), arrays, and volume groups.

21. (original) The method of claim 18, wherein
the first one of said separate but overlapping hierarchies represents physical storage resources of a storage system, and
the second one of said separate but overlapping hierarchies represents logical storage resources of the storage system.

22. (original) The method of claim 18, wherein the second direction is opposite to the first direction.

23. (original) The method of claim 18, wherein said first, second and third types of resources are represented by icons, further comprising:
sizing said icons in proportion to at least one attribute of said represented resource.

24. (original) The method of claim 23, wherein said at least one attribute is storage capacity.

25. (original) The method of claim 23, further comprising:
arranging said icons representing same type of resources into columns, wherein adjacent columns group different resources, and a row intersecting adjacent columns indicate relationships between particular resources of the respective column.